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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/583,078	05/14/2007	Akira Tomita	Q95333	9174
23373 7590 03/25/2010 SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037				
EXAMINER MAKI, STEVEN D				
ART UNIT		PAPER NUMBER		
1791				
NOTIFICATION DATE		DELIVERY MODE		
03/25/2010		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/583,078

Applicant(s)

TOMITA, AKIRA

Examiner

Steven D. Maki

Art Unit

1791

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6 and 7 is/are rejected.
- 7) ☒ Claim(s) 4 and 5 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/CD)
Paper No(s)/Mail Date 061506, 101906, 112608
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: ____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____

- 1) Figure 6 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.
- 2) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

- 3) **Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan 608 (JP 07-251608) in view of Kogure et al (US 5,355,922).**

Japan 608, directed to improving straight advancing stability of a passenger car tire, discloses a radial pneumatic tire comprising five land portions (a center land portion and two side land portions on each side of the center land portion) delimited by circumferential grooves 9a, 9b, 9c and 9d and circumferential slots 17. The side land portions are illustrated as being ribs. See Figure 2. In paragraph 15 of the machine translation, Japan 608 teaches that the side land portions may be divided into blocks as an alternative to the side land portions being ribs as illustrated in Figure 2. Hence, Japan 608 clearly discloses ribs. The center land portion is located on the equatorial

plane. See Figure 1. Japan 608 teaches that the center land portion may have sipes 19 as an alternative to lateral grooves 19. A land portion having only sipes is considered to be a rib-shaped part. Japan 608 discloses an example tire having a size of 235/45ZR17 and a tread width of 185 mm. The width of the upper surface 13 of the center land portion is 25 mm. Thus, the center land portion may have a width of 13.5% of the tread width ($13.5\% = 25 \text{ mm} / 185 \text{ mm} \times 100\%$). Japan 608 teaches that the upper surface 13 of the center land portion is offset from the surface of the tread by a distance L wherein distance L = 0.5 to 3 mm. In claim 1, two of the three claimed circumferential grooves read on the circumferential grooves 9a and 9d. The claimed center circumferential groove reads on the "center circumferential groove" defined by the outer walls of grooves 9b and 9c. This "center circumferential groove" contains the center rib shaped land portion, which has its upper surface 13 offset from the tread surface by L = 0.5 to 3 mm. Thus, Japan 608's tire can be described as having two narrow circumferential grooves 9a, 9d and one wide circumferential groove having an offset rib shaped land portion therein. The term "thin" in claim 1 fails to define a width for the rib shaped part different from that disclosed by Japan 608; especially since Japan 608 teaches an example width of 13.5% of tread width for the center land shaped portion and applicant's rib shaped part may have a width of 10% of the tread width. See dependent claim 2. Japan 608's circumferential grooves are see through because they are straight. Japan 608 substantially discloses the claimed invention except for the inequality expression at the last line of claim 1. Japan 608 is silent as to the depth of the grooves 9a, 9b, 9c and 9d.

As to claim 1, it would have been obvious to one of ordinary skill in the art to provide the grooves 9a, 9b, 9c and 9d of Japan 608's radial pneumatic tire such that

$$0.7D \leq (D-d) \leq D - 3\text{mm}$$

since Kogure et al teaches that the depth of tread grooves usually ranges from 8 mm to 11 mm in conventional radial tires (Col. 4 lines 1-3). When using an offset L of 3 mm and a groove depth of 10 mm, the equality expression becomes $0.7 \times 10 \text{ mm} \leq (10 \text{ mm} - 3 \text{ mm}) \leq 10 \text{ mm} - 3 \text{ mm}$ which simplifies to $7 \text{ mm} \leq 7 \text{ mm} \leq 7 \text{ mm}$. Thus, the inequality expression at the last line of claim 1 is satisfied when using 3 mm for the distance L (Japan 608 disclosing $L = 0.5 \text{ mm}$ to 3 mm) and a groove depth of 10 mm (within the usual range of 8-11 mm for conventional radial pneumatic tires as evidenced by Kogure et al).

As to claim 2, it would have been obvious to one of ordinary skill in the art to provide Japan 608's center land portion with a width of 2-10% tread since Japan 608 teaches using an offset center land portion having a width, for example, of 13.5% tread width to improve straight advancing stability.

As to claim 3, note circumferential slots 17.

4) Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan 608 (JP 07-251608) in view of Kogure et al (US 5,355,922) as applied above and further in view of Hargraves (US 2,272,879).

As to claims 6 and 7, it would have been obvious to one of ordinary skill in the art to provide the ribs of Japan 608's tire tread with sipes as claimed since Hargraves

suggests forming narrow slots ("sipes") having a width of 0.5 mm to 1 mm in ribs of a tire tread to improve resistance to skidding.

Allowable Subject Matter

5) Claims 4 and 5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Remarks

6) The remaining references are of interest.

7) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven D. Maki whose telephone number is (571) 272-1221. The examiner can normally be reached on Mon. - Fri. 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Steven D. Maki/
Primary Examiner, Art Unit 1791

Steven D. Maki
March 20, 2010